

DRAFT Reliability Standard Audit Worksheet¹

PER-005-2 – Operations Personnel Training

This section to be completed by the Compliance Enforcement Authority.

Audit ID: Audit ID if available; or REG-NCRnnnnn-YYYYMMDD
Registered Entity: Registered name of entity being audited
NCR Number: NCRnnnnn
Compliance Enforcement Authority: Region or NERC performing audit
Compliance Assessment Date(s)²: Month DD, YYYY, to Month DD, YYYY
Compliance Monitoring Method: Audit
Names of Auditors: Supplied by CEA

Applicability of Requirements

	BA	DP	GO	GOP	IA	LSE	PA	PSE	RC	RP	RSG	TO	TOP	TP	TSP
R1	X								X			X ³			
R2												X ³			
R3	X								X			X ³	X		
R4	X								X			X ³	X		
R5	X								X			X ³			
R6				X ⁴											

¹ NERC developed this Reliability Standard Audit Worksheet (RSAW) language in order to facilitate NERC’s and the Regional Entities’ assessment of a registered entity’s compliance with this Reliability Standard. The NERC RSAW language is written to specific versions of each NERC Reliability Standard. Entities using this RSAW should choose the version of the RSAW applicable to the Reliability Standard being assessed. While the information included in this RSAW provides some of the methodology that NERC has elected to use to assess compliance with the requirements of the Reliability Standard, this document should not be treated as a substitute for the Reliability Standard or viewed as additional Reliability Standard requirements. In all cases, the Regional Entity should rely on the language contained in the Reliability Standard itself, and not on the language contained in this RSAW, to determine compliance with the Reliability Standard. NERC’s Reliability Standards can be found on NERC’s website. Additionally, NERC Reliability Standards are updated frequently, and this RSAW may not necessarily be updated with the same frequency. Therefore, it is imperative that entities treat this RSAW as a reference document only, and not as a substitute or replacement for the Reliability Standard. It is the responsibility of the registered entity to verify its compliance with the latest approved version of the Reliability Standards, by the applicable governmental authority, relevant to its registration status.

The NERC RSAW language contained within this document provides a non-exclusive list, for informational purposes only, of examples of the types of evidence a registered entity may produce or may be asked to produce to demonstrate compliance with the Reliability Standard. A registered entity’s adherence to the examples contained within this RSAW does not necessarily constitute compliance with the applicable Reliability Standard, and NERC and the Regional Entity using this RSAW reserves the right to request additional evidence from the registered entity that is not included in this RSAW. Additionally, this RSAW includes excerpts from FERC Orders and other regulatory references. The FERC Order cites are provided for ease of reference only, and this document does not necessarily include all applicable Order provisions. In the event of a discrepancy between FERC Orders, and the language included in this document, FERC Orders shall prevail.

² Compliance Assessment Date(s): The date(s) the actual compliance assessment (on-site audit, off-site spot check, etc.) occurs.

³ Applicable to Transmission Owner that has personnel, excluding field switching personnel, who can act independently to operate or direct the operation of its Bulk Electric System transmission facilities in Real-time.

⁴ Applicable to Generator Operator that has dispatch personnel at a centrally located dispatch center who receive directions from their Reliability Coordinator, Balancing Authority, Transmission Operator, or Transmission Owner and may develop specific dispatch instructions for plant operators under their control. These personnel do not include plant operators located at a generator plant site or personnel at a centrally located dispatch center who relay dispatch instructions, without making any modifications.

DRAFT NERC Reliability Standard Audit Worksheet
TEMPLATE

Subject Matter Experts

Identify Subject Matter Expert(s) responsible for this Reliability Standard. (Insert additional rows if necessary)

Registered Entity Response (Required):

SME Name	Title	Organization	Requirement(s)

DRAFT

**DRAFT NERC Reliability Standard Audit Worksheet
TEMPLATE**

R1 Supporting Evidence and Documentation

- R1.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall use a systematic approach to develop and implement a training program for its System Operators as follows:
 - 1.1.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall create a list of Bulk Electric System (BES) company-specific Real-time reliability-related tasks based on a defined and documented methodology.
 - 1.1.1.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall review, and update if necessary, its list of BES company-specific Real-time reliability-related tasks identified in part 1.1 each calendar year.
 - 1.2.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall design and develop training materials according to its training program, based on the BES company-specific Real-time reliability-related task list created in part 1.1.
 - 1.3.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall deliver training to its System Operator according to its training program.
 - 1.4.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall conduct an evaluation each calendar year of the training program established in Requirement R1 to identify any needed changes to the training program and shall implement the changes identified.

- M1.** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have available for inspection evidence of using a systematic approach to develop and implement a training program, as specified in Requirement R1.
 - M1.1** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have available for inspection its methodology and its BES company-specific Real-time reliability-related task list, with the date of the last review, as specified in Requirement R1 part 1.1 and part 1.1.1.
 - M1.2** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have available for inspection training materials, as specified in Requirement R1 part 1.2.
 - M1.3** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have available for inspection System Operator training records showing the names of the people trained, the title of the training delivered, and the dates of delivery to show that it delivered the training, as specified in Requirement R1 part 1.3.
 - M1.4** Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have available for inspection evidence (such as instructor observations, trainee feedback, supervisor feedback, course evaluations, learning assessments, or internal audit results) that it performed an evaluation of its training program each calendar year, as specified in Requirement R1 part 1.4.

Definition of System Operator

An individual at a Control Center of a Balancing Authority, Transmission Operator, or Reliability Coordinator, who operates or directs the operation of the Bulk Electric System in Real-Time.

**DRAFT NERC Reliability Standard Audit Worksheet
TEMPLATE**

Registered Entity Response to General Compliance with this Requirement (Required):

Describe, in narrative form, how you meet compliance with this Requirement. Provide a brief explanation, in your own words, of how you meet compliance with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

--

Evidence Requested⁵:

Provide the following evidence, or other evidence to demonstrate compliance. If the provisioning of this evidence is burdensome or otherwise unreasonable, contact your CEA to arrange for sampling or other means of reduction of the quantity of evidence submitted.
(part 1.1) List of BES company-specific Real-time reliability-related tasks and documented methodology for developing task list.
(part 1.1.1) Evidence, such as a memo, meeting minutes, or dated task list, of review of the task list each calendar year.
(part 1.2) Samples of training materials as requested by the auditor.
(part 1.3) An organization chart or other list identifying all System Operator and the BES company-specific Real-time reliability-related tasks they perform. List of training delivered and attendance logs for a sample of training sessions requested by the auditor.
(part 1.4) Evidence, such as a memo, meeting minutes, or other information as specified in M1.4 demonstrating that the review of the training program occurred every calendar year and a list of needed changes to the training program based on the review.

Registered Entity Evidence (Required):

The following information is recommended for all evidence submitted: File Name, Document Title, Revision, Date, Page(s), Section(s), Section Title(s), Description Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

⁵ Items in the Evidence Requested section are suggested evidence that may, but will not necessarily, demonstrate compliance. These items are not mandatory and other forms and types of evidence may be submitted at the entity's discretion.

**DRAFT NERC Reliability Standard Audit Worksheet
TEMPLATE**

Compliance Assessment Approach Specific to PER-005-2, R1

This section to be completed by the Compliance Enforcement Authority

	The RSAW Developer will complete this section with a set of detailed steps for the audit process.
	(part 1.1) and (part 1.1.1) Verify entity's list of BES company-specific Real-time reliability-related tasks, related methodology, and evidence of review each calendar year. Ensure list of BES company-specific Real-time reliability-related tasks was created pursuant to their methodology.
	(part 1.2) Review sample of training materials provided to determine if they support the BES company-specific Real-time reliability-related task list.
	(part 1.3) Agree specific System Operators, as selected by the auditor from the organization chart, back to attendance logs for training that was delivered related to the BES company-specific Real-time reliability-related tasks they perform pursuant to its program.
	(part 1.4) Review evidence that the review of the training program occurred every calendar year. Review list of changes to the training program based on the review and examine training materials, or other documents, to gain reasonable assurance that changes identified were implemented into the training program.

Note to Auditor: The training staff do not have to be internal staff of the entity.

Auditors are not to assess an entity's use of a systematic approach to training against any specific framework such as the ADDIE model. Rather, ~~while~~ the sub-requirements for Requirement R1 address the elements of a systematic approach consistent with FERC orders No.742 at P25 and No. 693 at P1380 and P1382. An auditor will evaluate whether the entity's overall training program follows the principles below:

- Assess training needs (analysis)
- Conduct the training activity (design, develop and implement)
- Evaluate the training activity (evaluate the effectiveness of the training)

Auditors are to interpret a calendar year as January 1 to December 31.

Changes such as simply rewording for clarification, that do not affect the task performance or knowledge requirements, are not considered a modified task.

It is acceptable to group tasks under a job position, and then identify the System Operators that perform that job position, in lieu of assigning tasks to each individual System Operator.

~~The nature and extent of audit procedures applied related to this requirement will vary depending on certain risk factors to the Bulk Electric System. In general, more extensive audit procedures will be applied where risks to the Bulk Electric System are higher based on compliance with this requirement.~~

~~Based on the assessment of risk, as described above, specific audit procedures applied for this requirement may range from exclusion of this requirement from audit scope to the auditor reviewing training records for an entity's entire population of System Operators.~~

**DRAFT NERC Reliability Standard Audit Worksheet
TEMPLATE**

Auditor Notes:

R2 Supporting Evidence and Documentation

- R2.** Each Transmission Owner shall use a systematic approach to develop and implement a training program for its personnel identified in Applicability Section 4.1.4.1 of this standard as follows:
~~*[Violation Risk Factor: Medium] [Time Horizon: Long-term Planning]*~~
- 2.1.** Each Transmission Owner shall create a list of BES company-specific Real-time reliability-related tasks based on a defined and documented methodology.
 - 2.1.1.** Each Transmission Owner shall review, and update if necessary, its list of BES company-specific Real-time reliability-related tasks identified in part 2.1 each calendar year.
 - 2.2.** Each Transmission Owner shall design and develop training materials according to its training program, based on the BES company-specific Real-time reliability-related task list created in part 2.1.
 - 2.3.** Each Transmission Owner shall deliver training to its personnel identified in Applicability Section 4.1.4.1 of this standard according to its training program.
 - 2.4.** Each Transmission Owner shall conduct an evaluation each calendar year of the training program established in Requirement R2 to identify any needed changes to the training program and shall implement the changes identified.
- M2.** Each Transmission Owner shall have available for inspection evidence of using a systematic approach to training to develop and implement a training program for its applicable personnel, as specified in Requirement R2.
- M2.1** Each Transmission Owner shall have available for inspection its methodology and its BES company-specific Real-time reliability-related task list, with the date of the last review, as specified in Requirement R2 part 2.1.
 - M2.2** Each Transmission Owner shall have available for inspection training materials, as specified in Requirement R2 part 2.2.
 - M2.3** Each Transmission Owner shall have available for inspection training records showing the names of the people trained, the title of the training delivered, and the dates of delivery to show that it delivered the training, as specified in Requirement R2 part 2.3.
 - M2.4** Each Transmission Owner shall have available for inspection evidence (such as instructor observations, trainee feedback, supervisor feedback, course evaluations, learning assessments, or internal audit results) that it performed an evaluation of its training program each calendar year, as specified in Requirement R2 part 2.4.

Registered Entity Response to General Compliance with this Requirement (Required):

Describe, in narrative form, how you meet compliance with this Requirement. Provide a brief explanation, in your own words, of how you meet compliance with this Requirement. References to supplied evidence, including links to the

**DRAFT NERC Reliability Standard Audit Worksheet
TEMPLATE**

appropriate page, are recommended.

Evidence Requested⁶:

Provide the following evidence, or other evidence to demonstrate compliance. If the provisioning of this evidence is burdensome or otherwise unreasonable, contact your CEA to arrange for sampling or other means of reduction of the quantity of evidence submitted.
(part 2.1) List of BES company-specific Real-time reliability-related tasks and documented methodology for developing task list.
(part 2.1.1) Evidence, such as a memo, meeting minutes, or dated task list, of review of the task list each calendar year.
(part 2.2) Samples of training materials as requested by the auditor.
(part 2.3) An organization chart or other list identifying all personnel applicable to Requirement R2 and the tasks they perform. List of training delivered and attendance logs for a sample of training sessions requested by the auditor.
(part 2.4) Evidence, such as a memo, meeting minutes, or other information as specified in M2.4 demonstrating that the review of the training program occurred every calendar year and a list of needed changes to the training program based on the review.

Registered Entity Evidence (Required):

The following information is recommended for all evidence submitted: File Name, Document Title, Revision, Date, Page(s), Section(s), Section Title(s), Description Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

Compliance Assessment Approach Specific to PER-005-2, R2

This section to be completed by the Compliance Enforcement Authority

	The RSAW Developer will complete this section with a set of detailed steps for the audit process.
	(part 2.1) and (part 2.1.1) Verify entity’s list of BES company-specific Real-time reliability-related tasks, related methodology, and evidence of review each calendar year. Ensure list of BES company-specific

⁶ Items in the Evidence Requested section are suggested evidence that may, but will not necessarily, demonstrate compliance. These items are not mandatory and other forms and types of evidence may be submitted at the entity’s discretion.

**DRAFT NERC Reliability Standard Audit Worksheet
TEMPLATE**

	Real-time reliability-related tasks was created pursuant to their methodology.
	(part 2.2) Review sample of training materials provided to determine if they support the BES company-specific Real-time reliability-related task list.
	(part 2.3) Agree specific System Operator, as selected by the auditor from the organization chart, back to attendance logs for training that was delivered related to the BES company-specific Real-time reliability-related tasks they perform pursuant to its program.
	(part 1.4) Review evidence that the review of the training program occurred every calendar year. Review list of changes to the training program based on the review and examine training materials, or other documents, to gain reasonable assurance that changes identified were implemented into the training program.

Note to Auditor: The training staff do not have to be internal staff of the entity.

Auditors are not to assess an entity's use of a systematic approach against any specific framework such as the ADDIE model. Rather, consistent with FERC orders No.742 at P25 and No. 693 at P1380 and P1382., an auditor will evaluate whether the entity's overall training program follows the principles below:

- Assess training needs (analysis)
- Conduct the training activity (design, develop and implement)
- Evaluate the training activity (evaluate the effectiveness of the training)

~~While the sub-requirements for Requirement R2 address the elements of a systematic approach consistent with FERC orders No.742 at P25 and No. 693 at P1380 and P1382, an auditor will evaluate whether the entity's overall training program follows the principles below:~~

- ~~Assess training needs (analysis)~~
- ~~Conduct the training activity (design, develop and implement)~~
- ~~Evaluate the training activity (evaluate the effectiveness of the training)~~

Auditors are to interpret a calendar year as January 1 to December 31.

Changes such as simply rewording for clarification, that do not affect the task performance or knowledge requirements, are not considered a modified task.

It is acceptable to group tasks under a job position, and then identify the personnel that perform that job position, in lieu of assigning tasks to each individual.

~~The nature and extent of audit procedures applied related to this requirement will vary depending on certain risk factors to the Bulk Electric System and the auditor's assessment of management practices specific to this requirement. In general, more extensive audit procedures will be applied where risks to the Bulk Electric System are higher and management practices are determined to be less effective.~~

~~Based on the assessment of risk and internal controls, as described above, specific audit procedures applied for this requirement may range from exclusion of this requirement from audit scope to the auditor reviewing training records for an entity's entire population of applicable personnel.~~

**DRAFT NERC Reliability Standard Audit Worksheet
TEMPLATE**

Auditor Notes:

R3 Supporting Evidence and Documentation

- R3.** Each Reliability Coordinator, Balancing Authority, Transmission Operator, and Transmission Owner shall verify, at least once, the capabilities of its personnel, identified in Requirement R1 or Requirement R2, assigned to perform each of the BES company-specific Real-time reliability-related tasks identified under Requirement R1 part 1.1 or Requirement R2 part 2.1
 - 3.1.** Within six months of a modification or addition of a BES company-specific Real-time reliability-related task, each Reliability Coordinator, Balancing Authority, Transmission Operator, and Transmission Owner shall verify the capabilities of each of its personnel identified in Requirement R1 or Requirement R2 to perform the new or modified BES company-specific Real-time reliability-related tasks identified in Requirement R1 part 1.1 and Requirement R2 part 2.1.
- M3.** Each Reliability Coordinator, Balancing Authority, Transmission Operator, and Transmission Owner shall have available for inspection evidence to show that it verified the capabilities of each of its personnel identified in Requirement R1 and Requirement R2 assigned to perform each of the BES company-specific Real-time reliability-related task identified under Requirement R1 part 1.1 or Requirement R2 part 2.1. This evidence may be documents such as records showing capability to perform BES company-specific Real-time reliability-related tasks with the employee name and date; supervisor check sheets showing the employee name, date, and BES company-specific Real-time reliability-related task completed; or the results of learning assessments.
 - M3.1** Each Reliability Coordinator, Balancing Authority, Transmission Operator, or Transmission Owner shall have available for inspection evidence that it verified the capabilities of applicable personnel to perform new or modified BES company-specific Real-time reliability-related tasks within 6 months of a modification or addition of a BES company specific Real-time reliability-related task.

Registered Entity Response (Required):

Question: Has entity modified or added a Real-time reliability-related task, since the Requirement R1 part 1.1 or Requirement R2 part 2.1 task lists were initially developed? Yes No

If so, when was task added, or what task was modified and when?

Include additional information regarding the Question in gray area below, including the type of response and format of the response requested, as appropriate.

Note: A separate spreadsheet or other document may be used. If so, provide the document reference below.

Registered Entity Response to General Compliance with this Requirement (Required):

Describe, in narrative form, how you meet compliance with this Requirement. Provide a brief explanation, in your own words, of how you meet compliance with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

**DRAFT NERC Reliability Standard Audit Worksheet
TEMPLATE**

Evidence Requested⁷:

Provide the following evidence, or other evidence to demonstrate compliance. If the provisioning of this evidence is burdensome or otherwise unreasonable, contact your CEA to arrange for sampling or other means of reduction of the quantity of evidence submitted.
(R3) Documentation, such as provided in M3, evidencing selected personnel’s capabilities to perform the BES company-specific Real-time reliability-related tasks selected by the auditor based on tasks identified under Requirements R1 part 1.1 and R2 part 2.1.
(part 3.1) A list of modifications or additions to BES company-specific Real-time reliability-related tasks. Entity’s previous list of BES company-specific Real-time reliability-related tasks. Documentation, such as provided in M3, evidencing selected personnel’s capability to perform modified or new tasks, as selected by the auditor.

Registered Entity Evidence (Required):

The following information is recommended for all evidence submitted: File Name, Document Title, Revision, Date, Page(s), Section(s), Section Title(s), Description Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

Compliance Assessment Approach Specific to PER-005-2, R3

This section to be completed by the Compliance Enforcement Authority

	The RSAW Developer will complete this section with a set of detailed steps for the audit process. See the RSAW Developer’s Guide for more information.
	(R3) For a sample of personnel and BES company-specific Real-time reliability-related tasks, review documentation verifying the personnel’s capabilities to perform the task at least one time.
	(part 3.1) Determine if entity added any BES company-specific Real-time reliability-related tasks, which can be gleaned from auditor’s knowledge of the entity’s history and operations based on experience and specific facts discovered during the audit scoping process as confirmed with the entity, the entity’s own assertions, a comparison of the current task list with a previous task list (also see parts 1.4 and 2.4), or any combination thereof. For a sample of additions, examine dated documentation to verify each of its

⁷ Items in the Evidence Requested section are suggested evidence that may, but will not necessarily, demonstrate compliance. These items are not mandatory and other forms and types of evidence may be submitted at the entity’s discretion.

**DRAFT NERC Reliability Standard Audit Worksheet
TEMPLATE**

personnel's capabilities occurred within six months of the modification or addition.

Note to Auditor: Note entity's response to above Questions.

~~The nature and extent of audit procedures applied related to this requirement will vary depending on certain risk factors to the Bulk Electric System. In general, more extensive audit procedures will be applied where risks to the Bulk Electric System are higher based on compliance with this requirement.~~

~~Based on the assessment of risk, as described above, specific audit procedures applied for this requirement may range from exclusion of this requirement from audit scope to the auditor reviewing training records for an entity's entire population of applicable personnel.~~

Auditor Notes:

R4 Supporting Evidence and Documentation

- R4.** Each Reliability Coordinator, Balancing Authority, Transmission Operator, and Transmission Owner that (1) has operational authority or control over Facilities with established Interconnection Reliability Operating Limits (IROLs) or (2) has established protection systems or operating guides to mitigate IROL violations, shall provide its personnel identified in Requirement R1 and Requirement R2 with emergency operations training using simulation technology such as a simulator, virtual technology, or other technology that replicates the operational behavior of the BES.
 - 4.1.** A Reliability Coordinator, Balancing Authority, Transmission Operator, or Transmission Owner that did not previously meet the criteria of Requirement R4 shall comply with Requirement R4 within 12 months of meeting the criteria.
- M4.** Each Reliability Coordinator, Balancing Authority, Transmission Operator, and Transmission Owner shall have available for inspection training records that provide evidence that personnel identified in Requirement R1 and Requirement R2 completed training that includes the use of simulation technology, as specified in Requirement R4.
 - M4.1** Each Reliability Coordinator, Balancing Authority, Transmission Operator, and Transmission Owner shall have available for inspection training records that provide evidence that personnel identified in Requirement R1 and Requirement R2 completed training that included the use of simulation technology, as specified in Requirement R4, within 12 months of meeting the criteria of Requirement R4.

Registered Entity Response (Required):

Question: Has entity gone from a situation of not having previously met the criteria of Requirement R4 to having to comply with it? Yes No

Include additional information regarding the Question in gray area below, including the type of response and format of the response requested, as appropriate.

Note: A separate spreadsheet or other document may be used. If so, provide the document reference below.

**DRAFT NERC Reliability Standard Audit Worksheet
TEMPLATE**

Registered Entity Response to General Compliance with this Requirement (Required):

Describe, in narrative form, how you meet compliance with this Requirement. Provide a brief explanation, in your own words, of how you meet compliance with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requested⁸:

Provide the following evidence, or other evidence to demonstrate compliance. If the provisioning of this evidence is burdensome or otherwise unreasonable, contact your CEA to arrange for sampling or other means of reduction of the quantity of evidence submitted.

(R4) Documentation such as training materials and attendance logs, evidencing emergency operations training using simulation technology replicating the operational behavior of the BES, for a sample of applicable personnel selected by the auditor.

(part 4.1) A dated list of IROLs acquired in accordance with Requirement R4.

Registered Entity Evidence (Required):

The following information is recommended for all evidence submitted:

File Name, Document Title, Revision, Date, Page(s), Section(s), Section Title(s), Description

Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

Compliance Assessment Approach Specific to PER-005-2, R4

This section to be completed by the Compliance Enforcement Authority

	The RSAW Developer will complete this section with a set of detailed steps for the audit process. See the RSAW Developer's Guide for more information.
	(R4) Review training materials and interview entity personnel to verify that the entity trained applicable personnel using simulation technology that replicated the operational behavior of the BES. Agree specific applicable personnel, as selected by the auditor from the organization chart (evidence for parts 1.3 and

⁸ Items in the Evidence Requested section are suggested evidence that may, but will not necessarily, demonstrate compliance. These items are not mandatory and other forms and types of evidence may be submitted at the entity's discretion.

**DRAFT NERC Reliability Standard Audit Worksheet
TEMPLATE**

	2.3), back to attendance logs for training using simulation technology.
	(part 4.1) Determine if entity obtained an IROL as outlined in Requirement R4, which can be gleaned from auditor's knowledge of the entity's history and operations based on experience and specific facts discovered during the audit scoping process as confirmed with the entity, the entity's own operating records and assertions, or any combination thereof. For a sample of applicable personnel, examine dated training materials and attendance records to verify training occurred within 12 months.
Note to Auditor: Note entity's response to above Questions.	
Only applicable to entities that have operational authority or control over Facilities with IROLs, or protection systems or operating guides to mitigate IROL violations.	
12 month window to execute simulation training only applies to entities newly acquiring IROLs (per above), since entities with existing IROLs should already have access to simulation technology.	
The nature and extent of audit procedures applied related to this requirement will vary depending on certain risk factors to the Bulk Electric System. In general, more extensive audit procedures will be applied where risks to the Bulk Electric System are higher based on compliance with this requirement.	
Based on the assessment of risk, as described above, specific audit procedures applied for this requirement may range from exclusion of this requirement from audit scope to the auditor reviewing training records for an entity's entire population of applicable personnel.	

Auditor Notes:

--

R5 Supporting Evidence and Documentation

R5. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall use a systematic approach to develop and implement training for its identified Operations Support Personnel on how their job function(s) impact on those BES company-specific Real-time reliability-related tasks identified by the entity pursuant to Requirement R1 part 1.1.

5.1. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall conduct an evaluation each calendar year of the training established in Requirement R5 to identify and implement changes to the training.

M5. Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have available for inspection evidence that Operations Support Personnel completed training in accordance with its systematic approach. This evidence may be documents such as training records showing successful completion of training. Documentation of training shall include employee name and date of training.

M5.1 Each Reliability Coordinator, Balancing Authority, and Transmission Operator shall have available for inspection evidence (such as instructor observations, trainee feedback, supervisor feedback, course evaluations, learning assessments, or internal audit results) that it performed an evaluation each calendar year, as specified in Requirement R5 part 5.1.

**DRAFT NERC Reliability Standard Audit Worksheet
TEMPLATE**

Definition of Operations Support Personnel

Individuals, who perform current day or next day outage coordination or assessments, or who determine SOLs, IROLs, or operating nomograms, in direct support of Real-time, operations of the Bulk Electric System.

Registered Entity Response to General Compliance with this Requirement (Required):

Describe, in narrative form, how you meet compliance with this Requirement. Provide a brief explanation, in your own words, of how you meet compliance with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requested⁹:

Provide the following evidence, or other evidence to demonstrate compliance. If the provisioning of this evidence is burdensome or otherwise unreasonable, contact your CEA to arrange for sampling or other means of reduction of the quantity of evidence submitted.

(R5) A list of the entity's Operations Support Personnel with a description of their role within the organization along with the BES company-specific Real-time reliability-related tasks they impact. Evidence that that training was developed using a systematic approach, and a list of training that has been delivered for Operations Support Personnel along with attendance logs for a sample of training sessions requested by the auditor.

(part 5.1) Evidence, such as a memo, meeting minutes, or other information as specified in M5 demonstrating the review of the training occurred every calendar year and a list of needed changes to the training program based on the review.

Registered Entity Evidence (Required):

The following information is recommended for all evidence submitted:

File Name, Document Title, Revision, Date, Page(s), Section(s), Section Title(s), Description

Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

⁹ Items in the Evidence Requested section are suggested evidence that may, but will not necessarily, demonstrate compliance. These items are not mandatory and other forms and types of evidence may be submitted at the entity's discretion.

**DRAFT NERC Reliability Standard Audit Worksheet
TEMPLATE**

Compliance Assessment Approach Specific to PER-005-2, R5

This section to be completed by the Compliance Enforcement Authority

	The RSAW Developer will complete this section with a set of detailed steps for the audit process. See the RSAW Developer’s Guide for more information.
	(R5) Interview entity to understand their process for determining training requirements for Operations Support Personnel. Select a sample of Operations Support Personnel and training materials for training specific to Operations Support Personnel. Vouch a sample of personnel back to attendance logs and review the sample of training materials.
	(part 5.1) Review evidence that the review of the training occurred every calendar year. Review list of changes to the training based on the review and examine training materials, or other documents, to gain reasonable assurance that changes identified were implemented into the training.

Note to Auditor: An auditor will evaluate the entity’s systematic approach with regard to the impact of the Operations Support Personnel’s job function on the BES company-specific Real-time reliability-related tasks.

Operations Support Personnel are required to receive training only on how their job functions impact the Real-time reliability-related tasks, not on the Operations Support Personnel’s ability to conduct these tasks. Therefore, the auditor will only determine if the entity’s systematic approach determined the skills and knowledge needed to understand the impact of the job function(s) on the BES company-specific Real-time reliability-related tasks.

Auditors are not to assess an entity’s use of a systematic approach against any specific framework such as the ADDIE model. Rather, consistent with FERC orders No.742 at P25 and No. 693 at P1380 and P1382, an auditor will evaluate whether the entity’s overall training program follows the principles below:

- Assess training needs (analysis)
- Conduct the training activity (design, develop and implement)
- Evaluate the training activity (evaluate the effectiveness of the training)

~~Consistent with FERC orders No.742 at P25 and No. 693 at P1380 and P1382 and current Electric Reliability Organization’s practices, to determine whether the entity used a systematic approach, an auditor will evaluate whether the entity’s training program follows the principles below:~~

- ~~Assess training needs (analysis)~~
- ~~Conduct the training activity (design, develop and implement)~~
- ~~Evaluate the training activity (evaluate the effectiveness of the training)~~

Auditors are to interpret a calendar year as January 1 to December 31.

~~The nature and extent of audit procedures applied related to this requirement will vary depending on certain risk factors to the Bulk Electric System. In general, more extensive audit procedures will be applied where risks to the Bulk Electric System are higher based on compliance with this requirement.~~

~~Based on the assessment of risk, as described above, specific audit procedures applied for this requirement may range from exclusion of this requirement from audit scope to the auditor reviewing training records for~~

**DRAFT NERC Reliability Standard Audit Worksheet
TEMPLATE**

~~an entity's entire population of Operations Support Personnel.~~

Auditor Notes:

R6 Supporting Evidence and Documentation

R6. Each Generator Operator shall use a systematic approach to develop and implement training to its personnel identified in Applicability Section 4.1.5 of this standard, on how their job function(s) impact the reliable operations of the BES during normal and emergency operations.

6.1 Each Generator Operator shall conduct an evaluation each calendar year of the training established in Requirement R6 to identify and implement changes to the training.

M6. Each Generator Operator shall have available for inspection evidence that its applicable personnel completed training in accordance with its systematic approach. This evidence may be documents such as training records showing successful completion of training. Documentation of training shall include employee name and date of training.

M6.1 Each Generator Operator shall have available for inspection evidence (such as instructor observations, trainee feedback, supervisor feedback, course evaluations, learning assessments, or internal audit results) that it performed an evaluation each calendar year, as specified in Requirement R6 part 6.1.

Registered Entity Response to General Compliance with this Requirement (Required):

Describe, in narrative form, how you meet compliance with this Requirement. Provide a brief explanation, in your own words, of how you meet compliance with this Requirement. References to supplied evidence, including links to the appropriate page, are recommended.

Evidence Requested¹⁰:

Provide the following evidence, or other evidence to demonstrate compliance. If the provisioning of this evidence is burdensome or otherwise unreasonable, contact your CEA to arrange for sampling or other means of reduction of the quantity of evidence submitted.

(R6) A list of personnel in accordance with Applicability Section 4.1.5 and 4.1.5.1 of this Reliability Standard with a description of their role and position within the organization. Evidence that training was developed using a systematic approach, and a list of training delivered for such personnel along with attendance logs for a sample of training sessions requested by the auditor.

(part 6.1) Evidence, such as a memo, meeting minutes, or other information as specified in M6.1 demonstrating the review of the training occurred every calendar year and a list of needed changes to the training program based on the review.

¹⁰ Items in the Evidence Requested section are suggested evidence that may, but will not necessarily, demonstrate compliance. These items are not mandatory and other forms and types of evidence may be submitted at the entity's discretion.

**DRAFT NERC Reliability Standard Audit Worksheet
TEMPLATE**

Registered Entity Evidence (Required):

The following information is recommended for all evidence submitted: File Name, Document Title, Revision, Date, Page(s), Section(s), Section Title(s), Description Also, evidence submitted should be highlighted and bookmarked, as appropriate, to identify the exact location where evidence of compliance may be found.

Audit Team Evidence Reviewed (This section to be completed by the Compliance Enforcement Authority):

Compliance Assessment Approach Specific to PER-005-2, R6

This section to be completed by the Compliance Enforcement Authority

	The RSAW Developer will complete this section with a set of detailed steps for the audit process. See the RSAW Developer’s Guide for more information.
	(R6) Interview entity to understand their process for determining training requirements for applicable personnel. Select a sample of personnel and training materials for training specific to their impact on the reliable operations of the BES during normal and emergency operations. Agree a sample of personnel to attendance logs and review the sample of training materials.
	(part 6.1) Review evidence that the review of the training occurred every calendar year. Review list of changes to the training based on the review and examine training materials, or other documents, to gain reasonable assurance that changes identified were implemented into the training.

Note to Auditor: An auditor will evaluate the systematic approach with regard to the impact of the Generator Operator’s job function(s) on the reliable operations of the BES during normal and emergency operations.

Auditors are not to assess an entity’s use of a systematic approach against any specific framework such as the ADDIE model. Rather, consistent with FERC orders No.742 at P25 and No. 693 at P1380 and P1382, an auditor will evaluate whether the entity’s overall training program follows the principles below:

- Assess training needs (analysis)
- Conduct the training activity (design, develop and implement)
- Evaluate the training activity (evaluate the effectiveness of the training)

~~Consistent with FERC orders No.742 at P25 and No. 693 at P1380 and P1382 and current Electric Reliability Organization’s practices, to determine whether the entity used a systematic approach, an auditor will evaluate whether the entity’s training program follows the principles below:~~

- ~~• Assess training needs (analysis)~~
- ~~• Conduct the training activity (design, develop and implement)~~
- ~~• Evaluate the training activity (evaluate the effectiveness of the training)~~

**DRAFT NERC Reliability Standard Audit Worksheet
TEMPLATE**

A calendar year is January 1 through December 31.

~~The nature and extent of audit procedures applied related to this requirement will vary depending on certain risk factors to the Bulk Electric System. In general, more extensive audit procedures will be applied where risks to the Bulk Electric System are higher based on compliance with this requirement.~~

~~Based on the assessment of risk, as described above, specific audit procedures applied for this requirement may range from exclusion of this requirement from audit scope to the auditor reviewing training records for an entity's entire population of Generator Operators.~~

Auditor Notes:

Revision History

Version	Date	Reviewers	Revision Description
1	12/17/2013	NERC Compliance, Standards	New Document
<u>2</u>	<u>1/27/2014</u>	<u>NERC Compliance, Standards</u>	<u>Revisions based on RSAW feedback received during comment period for PER-005-2.</u>